

Schottky Barrier Rectifier

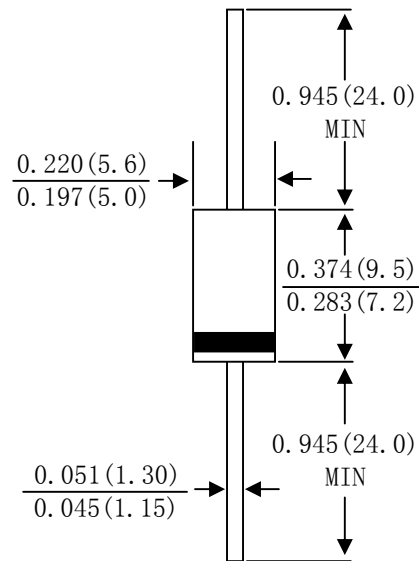
Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94-0
- Metal silicon junction, majority carrier conduction
- low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed: 260°C/10seconds, 0.375"(9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

- **Case:** JEDEC DO-201AD molded plastic body
- **Terminals:** Plated leads solderable per MIL-STD-750, Method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

DO-201AD



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half-wave 60Hz, resistive or inductive load, For capacitive load derate current by 20%.

Type Number	SYMBOL	HSR 1040	HSR 1045	HSR 1050	HSR 1060	HSR 1080	HSR 10100	HSR 10150	HSR 10200	Units
Maximum recurrent peak reverse voltage	V_{RM}	40	45	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	28	32	35	42	57	70	105	140	V
Maximum DC blocking voltage	V_{DC}	40	45	50	60	80	100	150	200	V
Maximum average rectified output current 0.375"(9.5mm) lead length(see fig.1)	$I_{(AV)}$	10.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0								A
Maximum instantaneous forward voltage at 10.0A	V_F	0.55		0.70		0.85		0.95		V
Maximum DC reverse current @TA=25°C	I_R	0.3				0.1		0.05		mA
At Rated DC blocking voltage @TA=100°C		200.0				20.0		10.0		
Typical junction capacitance (Note 1)	C_j	550.0				400.0				pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	25.0								°C/W
Operating junction temperature range	T_j	-55 to +150								°C
Storage temperature range	T_{STG}	-55 to +150								°C

Note: 1. Measured at 1.0 MHz and applied reverse Voltage of 4.0V D.C

2. Thermal resistance from junction to ambient and from junction to lead at 0.375"(9.5mm) lead length, P.C.B. mounted.

RATINGS AND CHARACTERISTIC CURVES HSR1040 THRU HSR10200

FIG. 1- FORWARD CURRENT DERATING CURVE

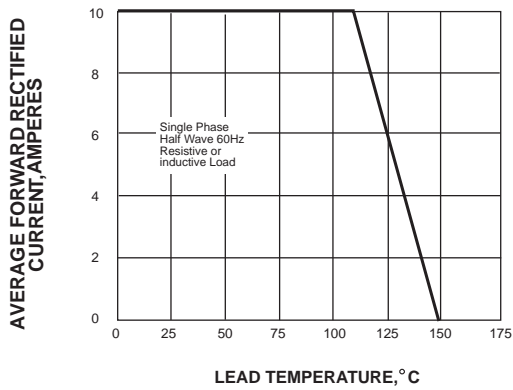


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

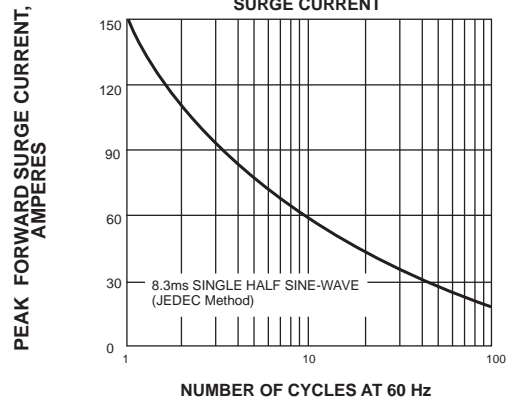


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

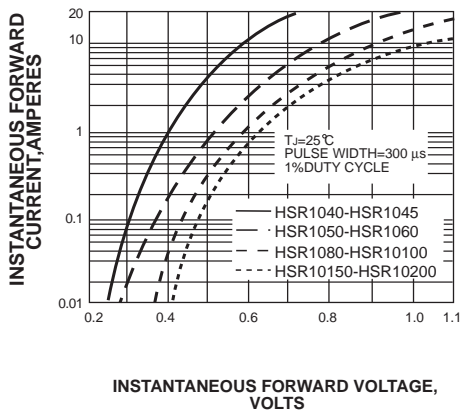


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

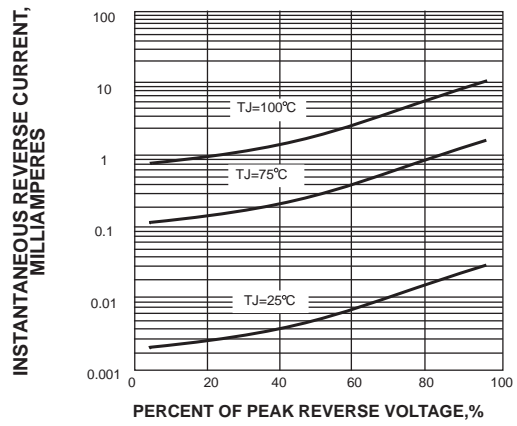


FIG. 5-TYPICAL JUNCTION CAPACITANCE

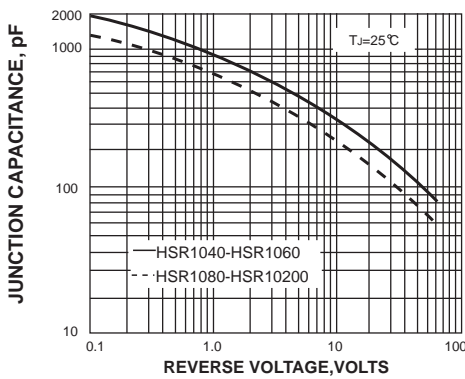
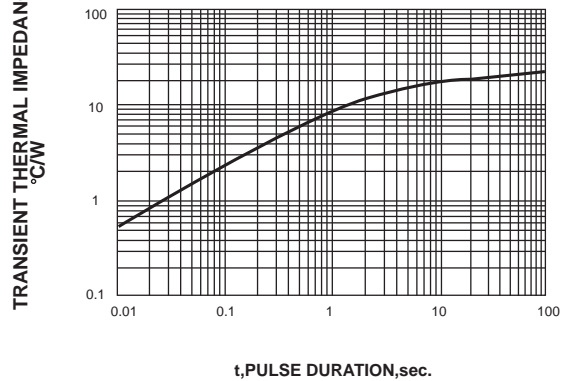
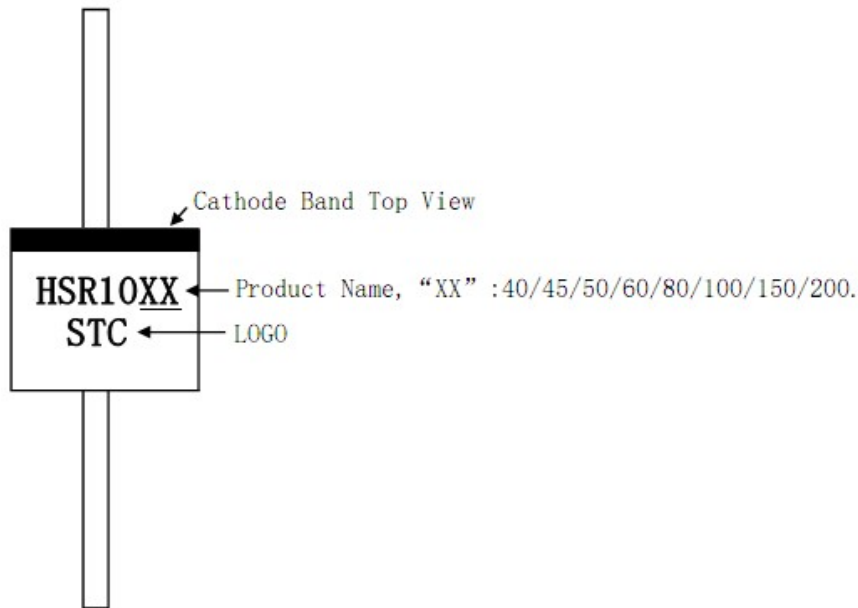


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



PRINTING INSTRUCTIONS



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